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The Beginning of The National Forest System

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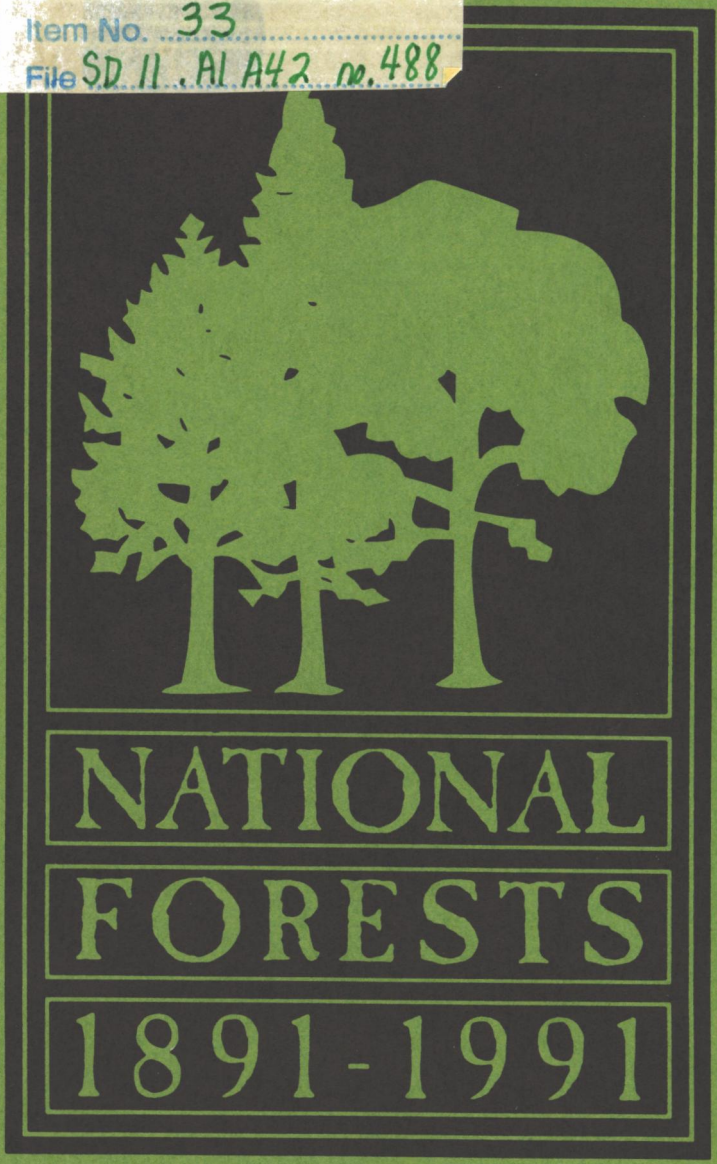

The Beginning Of The National Forest System

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In cooperation with the History Unit
USDA Forest Service Washington, D.C.

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Preface

Former Forest Service Chief John R. McGuire once characterized the National Forest System as an "experiment in land management." It is a thoughtful expression, for it reminds us that as a Nation we could have chosen to treat our public forest lands differently than we did. History is often written in a way that what is reported seems to have been inevitable; however, a close vote in Congress or some other event could have "gone the other way" if the situation had been slightly different. An 1891 Federal statute authorizing the reservation of certain forested public lands by Presidential proclamation and an 1897 law defining the purposes for which those reserves could be established are cases in point. While there is no evidence to suggest that Congress of a century ago would be disappointed by the national forests of today, there also is no evidence that the legislators anticipated either the laws' ultimate magnitude or their permanence.

The National Forest System grew, haltingly in its first decade (the 1890's), massively in its second (the 1900's), and then more or less leveled out, except for the gradual but eventually significant additions through land purchases in the East since 1911. The following narrative focuses on the first decade, when the National Forest System began and was defined. The subsequent conservation movement and development of the Forest Service as a management agency are creatures of the 20th century; in terms of the National Forest System, these were abruptly different times with a much different tempo than the inaugural decade. This latter story has been well told by several authors, who independently have reached a general consensus on what happened and who caused it; it will not be repeated here.

The origins of the National Forest System have remained murky, with accounts varying widely and having vague details. The purpose of the study reported here was to reexamine the available literature and archival sources to find whether a clear—or at least clearer—explanation was possible. As it turned out, four publications went a long way toward pulling the story together. Two doctoral dissertations and a law journal article provided accurate descriptions of certain events leading up to the passage of the 1891 act. The authors provided cautious conclusions, however, suggesting perhaps that they were really telling a different story and were not inclined to nail down our particular episode. However, the fourth author, in a spritely, even aggressive, chapter in a book about the modern-day Tongass National Forest, zeroed in on the 1891 act and its contested authorship. It seems that he told the essential story closely to how it actually happened. These four works

and others are listed under "References."

By the measure of statutory longevity, Congress did well in setting up the National Forest System. It was not until 1960 that Congress expanded the 1897 definition of national forest purposes with the Multiple Use–Sustained Yield Act, and it was not until 1976 that the National Forest Management Act replaced the broad delegation of administrative authority under the 1897 act with a significant degree of prescription. Litigation over original water and timber clauses in the 1970's would contribute materially to the ways the National Forest System would or could be managed. The statutes of the 1890's achieved their purpose, however, and set the stage for today. It is this reality that led to the writing of this historical monograph.

Dennis Roth, former head of the Forest Service History Unit, invited me to conduct this study as part of the 1991 centennial observation of the National Forest System. His successor, Terry West, Robert Hendricks, centennial coordinator, and Jerry Williams, a Forest Service historian, reviewed a draft manuscript and made valuable suggestions. Terry also patiently granted a time extension so I could also work on a pressing, but parallel, effort: serving as a Department of Justice expert witness, regarding Forest Service water-rights litigation, which, not incidentally, hinges largely on determining the congressional intent of the 1891 and 1897 acts.

I am grateful to Dennis, Terry, Rob, and Jerry and to a bevy of attorneys—friendly or hostile—who helped me sharpen my thoughts. Jim Muhn, historian for the Bureau of Land Management, showed me just how the reservation proclamation really worked. I am also grateful to Joe Miller, Sally Fairfax, Herbert Kirkland, and Ron Arnold, the authors of the four works referred to above; they showed me a new way of looking at 1891.

Contents

Introduction	1
The Public Domain and the Nation's Forests	2
Forestry Bills	3
Science and Forestry	5
First Federal Forestry Agent	6
The Forest Reserve Act Takes Shape	10
The Timberland Sections	12
Other Areas of Forestry Activity	13
Adirondack Forest Reserve	15
Yellowstone National Park	15
Boone and Crockett Club	16
The Forest Reserve Act of 1891	18
Section 24	19
Origins of 1891 Act—Fernow and Holman	22
The Yellowstone Park Timberland Reserve	24
Forest Reserve Instructions	27
The Debate Over Purposes	28
Sustained-Yield and Multiple-Use	28
Water Reserves	28
Timber Sales	30
Federal Waters	30
Forest Reserve Commission of 1896	30
Cleveland's 21-Million-Acre Surprise	31
Passage at Last	34
Forest Management Act of 1897	34
Final Observations	35
References	36
Unpublished	36
Published	36

Introduction

The establishment of the first American national forest, while effective and long lasting, was not hitch-free. The record does not reveal just how President Benjamin Harrison felt about it—whether or not he was embarrassed—but he did issue a correction in a September 10, 1891, proclamation. His earlier action on March 30 of that year was intended to establish the boundaries of a forest reserve adjacent to Yellowstone National Park, but that proclamation was defective, so he issued the corrected version "for the purpose of removing any doubt and making the boundaries of said reservation more definite." This was not an auspicious beginning for a process that would initiate the reservation of 10 percent of the Nation's land.

Arnold Hague of the U.S. Geological Survey, the author of the defective proclamation, noticed the error almost immediately after the President had issued it. The precise location of the boundaries was not clear from the initial legal descriptions. Also, the traverse did not close—that is, if surveyors ran the boundary lines as described in the proclamation, they would not end where they started. Hague wrote to his friend and associate George B. Grinnell that "nobody but yourself will notice anything wrong in the proclamation." However, someone did notice, and in July, Thomas H. Carter, Commissioner of the General Land Office (GLO), reported to Secretary of the Interior John Noble that he had examined the March 30 proclamation and found it deficient. Carter further explained that he knew what the President had intended and would work up a correct description.

The Presidential action of March 30, 1891, had been authorized by a bill that Harrison had signed into law less than a month earlier on March 3. That law, which historians now call the Forest Reserve Act of 1891, followed two decades of congressional debate over the Nation's forests. The debate did not end in 1891, however. Congress would continue to wrestle with the issue until June 4, 1897, when President William McKinley signed the Forest Management Act, or the Organic Act, which determined the purposes for which the national forests could be created—primarily to ensure predictable supplies of water and timber. Not until the 1960's and 1970's would Congress and the courts take another look at those purposes.

The Public Domain and the Nation's Forests

It was the Civil War, with all of its tragic disruptions, that triggered a momentum of concern over western public lands. Thus, the National Forest System story really begins in the 1860's with the opening of the West.

The South, with its agrarian economy, was apprehensive about the development of western farmland; as new States applied for admission to the Union, they had to overcome southern reluctance. Slavery, too, added to the concern about agricultural competition. When Congress contemplated land grants to railroads or free land to any who would settle it, southerners impeded or opposed the bills. Then the South seceded from the Union, which of course included Congress. Now there were only "northerners" left to vote on public land statutes, and they *did* vote.

Congress passed and President Lincoln signed land-grant legislation (Transcontinental Railroad Act, 1862; Homestead Act, 1862) to encourage the construction of a railroad to the west coast and to offer free homesteads to those who would build homes and live on the virgin land. There also were grants to States to support colleges of agriculture and mechanical arts, the so-called A&M schools. Finally, during 1862, the Department of Agriculture was established. These statutes (or laws) greatly accelerated the rate of transferring public land into private ownership. They created a transportation infrastructure, an educational system that trained people in professions that would be needed in the future conservation movement, and a department that would directly involve the Federal Government in land management and ultimately house a Federal forestry agency.

The public land statutes of the Civil War were just four in a long sequence of land laws, beginning with the Ordinance of 1785 enacted by the Continental Congress. Thus, even before the United States had a constitution, a president, or a government consisting of executive, legislative, and judicial branches, the new Nation had decided that its western lands were to be surveyed and transferred from public to private ownership. Sales of these lands would generate substantial revenue to support Government programs, and settling the land would ensure sovereignty over it. By 1880, there would be more than 3,000 Federal statutes concerning public lands, and in those days before income tax, the revenue from land sales was a major part of the Federal budget.

Land sales were brisk from the beginning. To increase their efficiency, in 1812, Congress established the General Land Office (GLO) in the Treasury Department—a logical location for an agency

concerned with revenue. In 1849, Congress approved the creation of the Department of the Interior, to which the GLO was transferred, as part of a growing recognition that public lands represented more than a source of income. The high volume of transactions would remain, and the GLO motto "doing a land office business" has been an American expression for a century and a half.

During the 19th century, one-half of the Nation was transferred into private ownership—in 160- or 640-acre pieces. Transactions were recorded by dipping a goose-quill pen into an inkwell and committing the legal description to paper. The Civil War statutes discussed earlier accelerated the process even more; grants to railroads and settlers would eventually account for a quarter of the Nation's land area.

Land-grant statistics, as awesome as they are, do not fully capture the impact of land grants on the development of the West. Railroad grants were in wide strips along the right-of-way. Railroad ownership developed in 40- to 80-mile-wide concentrations and stretched from the Mississippi River to the Pacific Ocean. The Northern Pacific Railway, for example, received 22 percent of Montana. Settlers—homesteaders—followed the tracks, riding the train west to settle and shipping their produce east by rail. Settlers and railroaders found themselves locked in an uneasy symbiotic relationship; settlers were "freight" to the railroaders, and railroads to the settlers were the key to the marketplace but also brought the threat of monopoly. Charges of monopoly and speculation, not opposition to "actual" settlement, fueled heated public land debates, in and out of Congress.

As migration increased territorial populations, westerners petitioned for statehood. As these new States entered the Union, the center of political gravity in Congress shifted westward as well. More and more people were trying to earn a living on these former public lands, and their elected representatives brought new perceptions and priorities to Congress. This process was aided by appointing westerners to committees on agriculture and public lands—the infrastructure that would initiate and review bills of interest to the West.

Forestry Bills

Between 1871 and 1897, Congress would consider nearly 200 bills concerned in some way with forests on western public lands. These bills fell into several categories:

1. Reserve forests to protect the headwaters of navigable rivers.

2. Forests to be protected from fire.

3. Forest reserves to be established by blocking public access allowed under the various land laws.

4. The sale of timber from public lands to be regulated.

5. Water supplies to be protected to enhance irrigation in the arid West.

Most of these bills were read (formally introduced to Congress) once, ordered printed, and dropped from view. A few passed one house but not the other; some had great staying power and were introduced year after year. The two most famous acts that jumped all the parliamentary hurdles and were signed into law—the Forest Reserve Act of 1891 and the Organic Administration Act of 1897—were in fact amendments to other statutes. In other words, the legislative history of forest reserves is both voluminous and complex, and tracing a particular thread requires great patience and more than a little detective skill.

The first forestry bill of national significance was introduced in the House of Representatives in 1872. H.R. 2197 (to encourage the planting of trees and the preservation of forests on the public domain) was read aloud twice, ordered printed, and referred to the House Committee on Agriculture. The committee reported favorably, but the House of Representatives voted against the bill, by a narrow margin of 81 for and 87 against.

The debate on H.R. 2197 was typical of that which would follow for the next several decades, and perhaps continues today. The bill dealt at length with treeless prairies needing afforestation and the debilitation that deforestation had brought to the Mediterranean region. Forests were reported to reduce floods while increasing rainfall—attributes of interest to those involved in river-based commerce and to farmers in the arid West. Opponents, however, feared for the loss of options to those settling the land—those who needed easy access to wood supplies and the opportunity to clear forests for agriculture, mining, town development, and all the activities common to the U.S. westward movement.

The U.S. Government places the burden of proof on the proponents of change. In general, a bill fails passage not because of opposition but because there are too few advocates to sustain it through the legislative process. In terms of the questions that H.R. 2197 raised, the benefits of forest conservation were rather abstract, while the immediate costs of locking up the resource could be easily understood. This cost-benefit situation was to remain, and a blizzard of forestry bills more or less went nowhere, with the two notable exceptions.

When congressional forest advocates spoke on the floor, they invariably included gruesome descriptions of barren land—usually somewhere in Europe or Asia. They often quoted from a growing body of scientific

literature that was sounding the alarm about deforestation. In fact, scientists both reported and advocated; the scientific impulse had a significant impact on forestry legislation.

Science and Forestry

Where do we begin with science? One interested in forest history could legitimately cite the ancients—Plato, Aristotle, and Pliny—as well as Manfred and Evelyn in 16th and 17th century England. Then there is Henry M. Brackenridge, sowing acorns on Florida's Santa Rosa Island in 1828 to grow ship timbers for the U.S. Navy. Most would agree, however, that science began to focus on forest issues in 1864, with the publication of *Man and Nature: Or the Earth as Modified by Human Action,* by George Perkins Marsh.

Marsh was cited almost immediately in executive reports, such as the annual report of the commissioner of agriculture. He was cited on the floor of Congress, in committee reports, by other scientists, and eventually by land managers. He is still cited today.

Man and Nature painted a sad picture of human excess in Europe, Asia, and Africa, where land had been abused and misused for millennia. The evidence was erosion, floods, and abandoned or devalued agricultural land with its attendant hunger, disease, and dislocated populations. Marsh proposed the notion of responsible stewardship—use the land and its resources but in such a way that it would retain its fecundity. Marsh also predicted the modern concepts—sustained yield, sustainable development, and land ethics.

Marsh offered a convenient introduction to the scientific contribution to American forestry. It was the scientists' powers of observation and analysis that allowed them to step back and see more clearly what was happening. Also, the exchange of scientific literature allowed comparisons and extrapolations with other nations that had settled their lands much earlier. If Americans wanted to know what their western lands would look like in a decade or a century if no safeguards for the forests were put in place, they had only to look to Spain, Greece, Turkey, or any of a number of ancient nations around the Mediterranean Sea.

There was another kind of scientist that would alter the trajectory of American land history. Franklin B. Hough was a physician in Lowville, New York. There is no record that he ever practiced medicine, but he did serve as a statistician for the Federal Census. When comparing New York State demographics for 1860 and 1870, he noticed fewer sawmills in the eastern part of the State and more in the west. He also saw population shifts that were at the very least coincidental with

relocated industry. New York had led the Nation in lumber production as recently as 1840, and Hough could see a westward shift. Intrigued, he traveled to Washington, D.C., and read everything he could find on forests at the Library of Congress. His concern for the status and condition of forests grew, and he began to draft a paper for presentation at the 1873 annual meeting of the American Association for the Advancement of Science (AAAS).

Hough's paper, "On the Duty of Governments in the Preservation of Forests," was well received by the scientists. In fact, Hough and Harvard botanist George Emerson headed a committee with instructions to write a petition asking Congress to address the issue. In Washington, Hough met Minnesota Representative Mark Dunnell, who became his champion. He also met with President Grant who, with the encouragement of Interior Secretary Columbus Delano, agreed to send the AAAS "memorial" to Congress with his recommendation that it be implemented.

H.R. 2497, an 1874 bill authorizing the "appointment of a commission for inquiry into the destruction of forests," was referred to the Committee on Public Lands. The accompanying committee report reprinted President Grant's letter transmitting the AAAS petition with a letter from the Secretary of the Interior urging Congress to act favorably. The letter also summarized scientific concern for forests. The Senate Committee on Public Lands issued a similar report, but no bill would appear in that chamber.

Dunnell helped Hough as best he could through the congressional maze, but the situation seemed bleak. The House Committee on Public Lands failed to act on the petition. In desperation, Dunnell had a rider attached to the 1876 agriculture appropriations measure calling for an individual "of scientific attainments" to be appointed to "report on forestry." The rider was retained, and the AAAS petition was brought to fruition.

First Federal Forestry Agent

The appropriations language was rather specific as to what the agent's duties were, but it was contained in a rather long paragraph sandwiched between sentences concerned with seed and plant distribution. It is worth reprinting the whole text, which clearly shows evidence of last-minute amending:

> *For the purchase and distribution of new an [sic] valuable seeds and plants, sixty thousand dollars: Provided, That two thousand dollars of the above amount shall be expended by the Commissioner of Agriculture as compensation to some man of approved attainments, who is practically well acquainted with methods of statistical inquiry, and who has evinced*

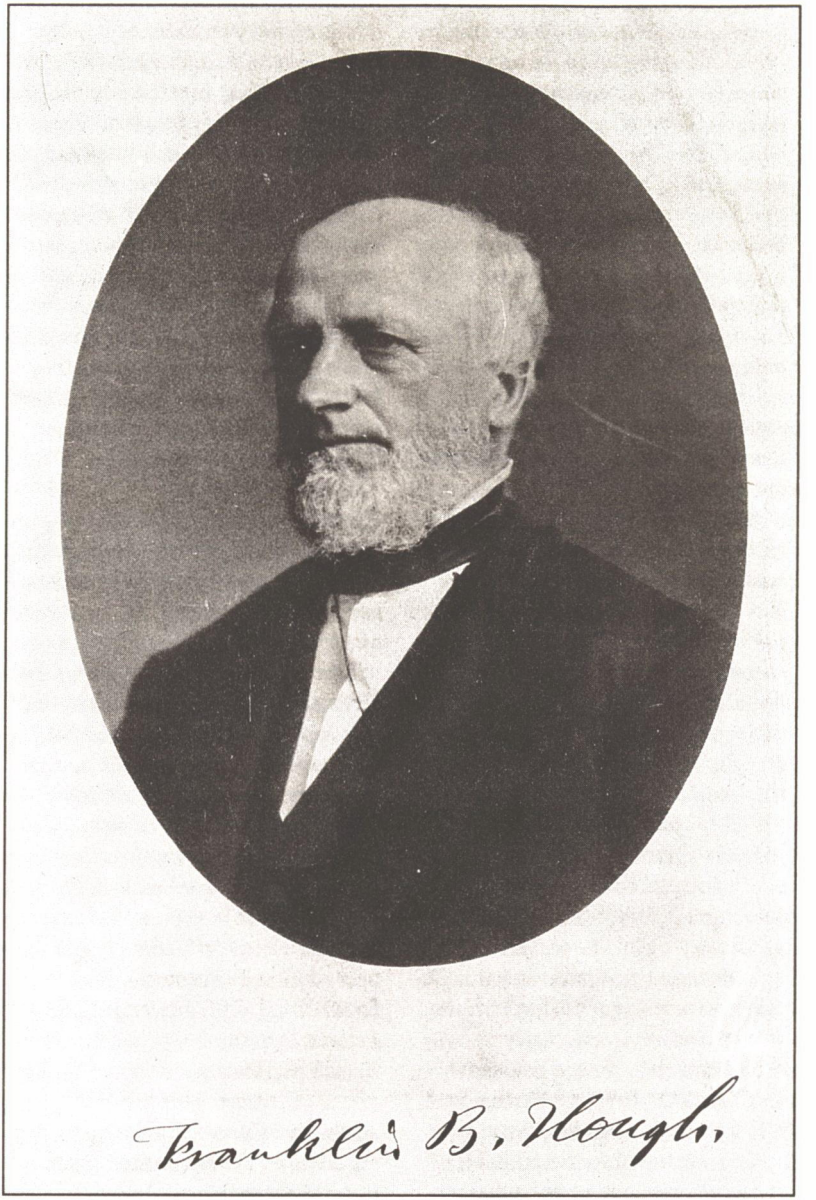
an intimate acquaintance with questions relating to the national wants in regard to timber to prosecute investigations and inquiries, with the view of ascertaining the annual amount of consumption, importation, and exportation of timber and other forest-products, the probable supply for future wants, the means best adapted to their preservation and renewal, the influence of forests upon climate, and the measures that have been successfully applied in foreign countries, or that may be deemed applicable in this country, for the preservation and restoration or planting of forests; and to report upon the same to the Commissioner of Agriculture to be by him in a separate report transmitted to Congress. For expense of putting up the same, for labor, bagging paper, twine, gum, and other necessary materials, five thousand dollars; in all, sixty five thousand dollars.

It was no surprise when Commissioner of Agriculture Frederick Watts named Hough to be the Federal forestry agent. However, there was one very significant variation; the appointment was in Agriculture and not Interior as originally anticipated. Years later, there was much debate over the logic of having "forestry" in Agriculture, but the location was much more because of last-minute parliamentary strategy than congressional intent.

As forestry agent, Hough compiled three reports upon forestry, published in 1877, 1880, and 1882. A fourth and final report by Nathaniel Egleston appeared in 1884. These reports, some of which were 600 pages long, were well received; Congress authorized a 25,000-copy press run for the first. The reports were compiled by gleaning published materials in the Library of Congress and through voluminous correspondence with others who had forestry information to share. They represented the state of American forestry art in the 1880's.

Hough's reports were wide ranging. He discussed land laws, tree planting, soil types, uses of wood, dangers from insects and fire, relations of forests to climate, and the forests of other nations. He found that the U.S. tradition of private property rights prevented public intervention in many destructive practices. He recommended that public timber be withdrawn from sale or entry, protected from fire, and cut under lease similar to the Canadian system. Congress was impressed enough to upgrade Hough's "forestry agent" operation and establish a Forestry Division in 1881, making it a permanent Department of Agriculture fixturé in 1886.

At the same time Hough was laboring to have Congress establish Federal forestry activity, another physician was to make his mark on



First Federal forestry agent, Franklin B. Hough, was appointed in 1876 to a position in the U.S. Department of Agriculture.

American forest history. John Aston Warder was also concerned with forest conditions; in 1875, he called a small group together for a meeting in Cincinnati. The exchange of ideas was so fruitful that the group decided to meet subsequently. They formalized the process by forming the American Forestry Association (AFA), which became a widely respected voice calling for responsible stewardship of forest lands. It used petitions and sought to influence congressional decisions; essentially all significant forestry legislation during the next century would reflect AFA's influence.

The rationale for the concern expressed by Hough, by those in the brand new AFA, by AAAS members, by George Perkins Marsh, and by Representatives and Senators who introduced forestry legislation was well documented in the annual reports of GLO. Until 1855, the solicitor of the Treasury administered what guardianship there was over public timber. Responsibility was then transferred to GLO, and the commissioner sent an instructional circular to field agents to curb timber "depredation," as the theft of public timber was called.

However, the Federal presence was thin "out West," and agents found it difficult to enforce laws. Local law enforcement officers were reluctant to offer help, and juries usually acquitted the few accused timber thieves who had been apprehended and indicted. A pragmatic alternative to theft prevention was the levying of a one-sixth value fine; those caught cutting public timber were expected to pay the fine without argument. This approach reduced the cost of litigation, and timber was made available to local communities at a modest cost. With public land having timber selling for as little as $1.25 per acre, selling timber alone for more could not be justified, westerners claimed. Of course, settlers were allowed timber for personal needs without charge.

Annual GLO reports contain much fascinating data on public land transactions—how many homestead claims were perfected, and so forth. The reports also tabulate timber depredation; between 1855 and 1880, agents had collected $249,000 in fines, and activity continued to increase—in 1882, there were 289 criminal and civil actions for timber theft, involving $512,000. Four years later, 50 timber agents worked 21 person-years investigating 1,219 trespass cases involving timber worth more than $9 million.

Between 1878 and 1891, appropriations for timber protection increased fourfold, while the overall Federal budget only doubled. The Government was responding to the timber problem, which included fire. In 1889, the Secretary of the Interior reported that more western timber had been destroyed by fire than had been stolen. Tangible Federal legislative action was overdue.

The Forest Reserve Act Takes Shape

During this period, Congress kept considering, sifting, and referring. With the burden of proof on the advocates, forestry proponents were still too tentative to carry the day. Ohio's Senator John Sherman is a case in point; in 1882, he introduced S. 1826 for the "preservation of the woods and forests of the national domain adjacent to the sources of the navigable rivers and their affluents [sic]." He stated that AFA supported it and that it was as "important as any subject which can receive the consideration of the Congress." He added that the forests would be protected by the Army and do "not involve any expense." No expense indeed for one of the most important subjects that Congress might consider! The bill was referred to the Senate Committee on Agriculture; a companion measure was introduced in the House and referred to that Committee on Agriculture. Nothing more happened.

Two years later, in 1884, Senator Sherman introduced a similar bill that was referred to the Senate Committee on Agriculture and Forestry. (Significantly, "and Forestry" had been added to the committee name, showing increased interest in forestry.) A companion bill was introduced in the House and referred to committee. Nothing more happened to those bills.

However, a bill to establish a forest reserve, this one on the headwaters of the Missouri and Clarke's Fork Rivers, also appeared in 1884, was debated, and passed the Senate. In the House, it was referred to committee, where it died. The Senate debate focused on watershed values that the reserve would provide; timber supplies were incidental. Enforcement was not incidental, however, because to be effective, a law must be enforceable. Observed Kansas senator John Ingalls, "We are in danger of biting off rather more than we can comfortably masticate," if it was made illegal to settle and then it was not possible to either detect trespass or do anything about it if people did. Ingalls believed that no river in the world needed help more than the Missouri. It is "a little too thick for a beverage and a little too thin for cultivation," and if a 6,000-square-mile forest reserve would help, he was for the reserve. His colleagues agreed, and the bill cleared the high chamber only to lose on the other side of the Capitol rotunda. It was not yet a forest reserve victory, but the mood was building.

The stream of forestry bills continued in both the House and Senate; many were repeats of earlier Congresses. These bills were referred to a variety of committees, but most went to Agriculture or Public Lands. When AFA offered a petition "praying for legislation to protect American forest and timber lands," it was sent to the House Committee on

Agriculture. In the Senate, Eugene Hale of Maine and Preston B. Plumb of Kansas debated the issue of seniority, with Plumb insisting that forestry bills belonged in Public Lands while Hale advocated Agriculture. It was obvious to Plumb that forest protection measures should be considered within the larger context of land disposal—thus the Committee on Public Lands. Hale, however, saw forestry as a special situation that was "growing in importance with the American people," so forestry issues deserved their own committee. The issue was not resolved in 1888 or even in 1988; Federal forest lands remain of interest to several congressional committees.

In 1888, more than two dozen bills were considered. Two in particular deserve scrutiny because they contained language that 3 years later would authorize the beginning of the National Forest System. They were designated H.R. 7901 and S. 1779—the latter bill being the focus of Hale's and Plumb's procedural sparring.

Hale's S. 1779 ("for the Protection and Administration of the Forest on the Public Domain") was a major measure that had been drafted by Bernhard Fernow, chief of the Division of Forestry and secretary of AFA. Hale called for the withdrawal from the public domain of forest land and authorized the President to designate certain lands as "permanent forest reserves." A new bureau in the Department of the Interior would administer the reserves. A year earlier, GLO agent Edward A. Bowers had submitted a report to his secretary that contained some of these same points. It is reasonable to assume that Bowers' thoughtful report had influenced Fernow, whom Bowers in all likelihood would have consulted anyway. S. 1779 was sent to committee, where it stayed. In the House, its counterpart was sent to committee and neglected. It and other forestry measures were replaced by H.R. 7901.

Indiana Representative William S. Holman, chairman of the Committee on Public Lands, reported on H.R. 7901 on February 20 "to secure to actual settlers the public lands adapted to agriculture, to protect the forests on the public domain, and for other purposes." The bill was offered as a substitute for 29 others that the committee had been considering. Subsequent debate and discussion would fill many pages of the *Congressional Record,* indicating the forestry concerns and issues of 1888. Highest on this list were the need to prevent land, water, or mineral monopolies and the need to ensure that the "actual" settler had ready access to the land made available under the Homestead Act or other public land laws.

The bill proposed that all public lands be classified as "agricultural, timber, mineral, desert, or reserved" and that henceforth land would be

disposed of according to its particular category. Mineral lands would be disposed of "under existing laws, except as herein provided," with the exception allowing settlement on coal and iron lands for $10 per acre (a controversial and heavily debated option). Timber from timberlands could be sold to the "highest bidder"; this was another controversial and heavily debated item. Land that required irrigation to be arable was classified as "desert land." Also controversial was the stipulation that 320 acres of desert land would be available to settlers, in addition to the 160-acre allotment under the Homestead Act.

The Timberland Sections

It is the timberland category that is most important in a historical context. Of the total 29 sections in H.R. 7901, 6 addressed timber, as follows:

- Section 4 stated that timber could be sold.
- Section 5 explained how the sale would be advertised and receipts accounted for.
- Section 6 described the purchasers' rights and obligations.
- Section 7 detailed administrative infrastructure.
- Section 8, conceptually similar to the Hale bill, authorized the President to reserve certain forest lands from entry "on which the trees and undergrowth shall be protected from waste or injury." The Secretary of the Interior could call on the Army to provide the protection—a practice only recently inaugurated in Yellowstone National Park.
- The intent of Section 9 is hazy, but under it land surveyors would record commercial forest stands down to 40-acre units, and it would be up to the commissioner of GLO to prescribe rules for these lands.

Holman continued to advocate H.R. 7901, referring to it as "the Homestead bill," but others were less than sanguine. Haggling over procedure filled pages of the *Record*, and at times the substance of the bill seemed almost secondary. In late June, the House buckled down and tackled it section by section. Coal was first at bat, generating charges and denial of favors to monopolies; then on June 25, the sections on timberlands went under the parliamentary microscope. Congressman Thomas McRae of Arkansas joined Holman to explain the sections to skeptics. Should timber be sold separately from the land? Should there be more protection against monopolists? Should there be more protection of the settlers' needs for wood? Amendments were offered and either accepted or challenged, but the substance of sections 4 through 7 remained intact.

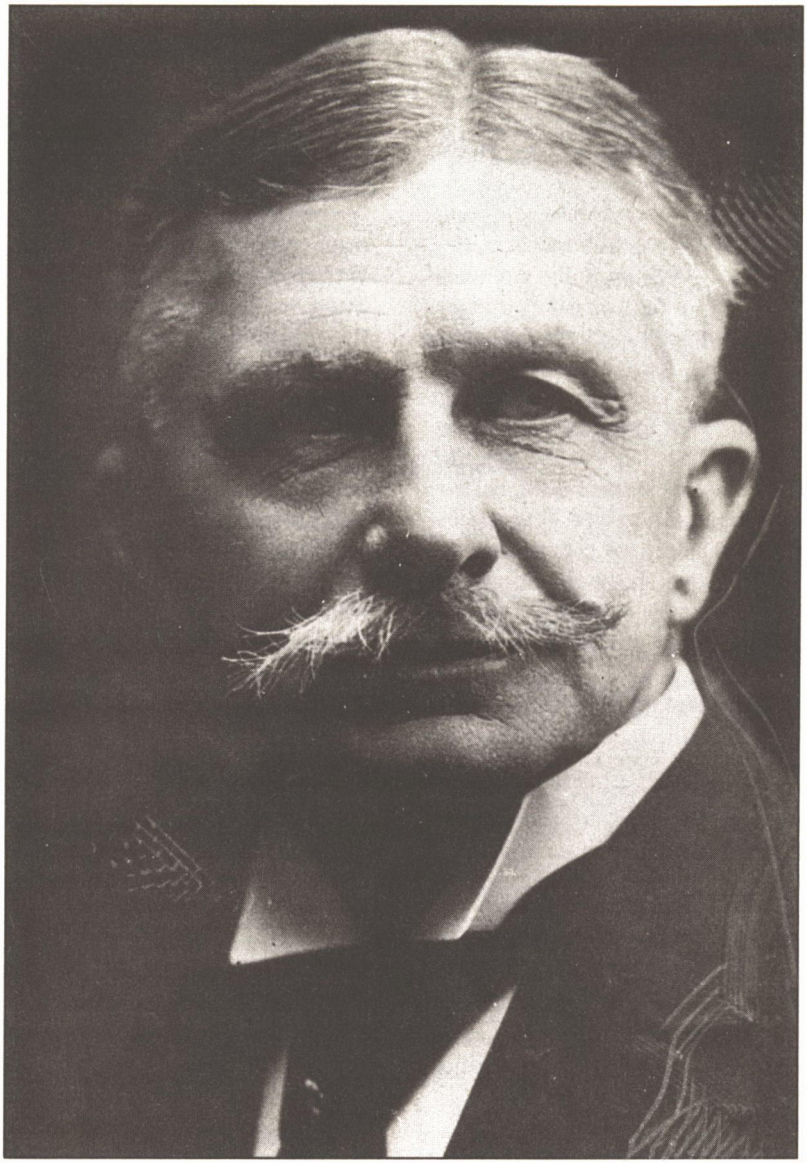
Sections 8 and 9 were offered together; what little debate there was concerned the need to strengthen the language to protect the rights of "actual" settlers, as opposed to speculators or monopolists. There was no amendment offered that was acceptable to the House, and the clerk continued with readings of section 10 and on to the end of the bill. Following major debate and compromise on sections concerning coal lands, the bill passed the House on June 27, 1888. In the Senate, it was referred to the Committee on Public Lands but was not reported out. The bill seemed dead, but a portion of it survived. It would be 2 years before we pick up this thread again; in the meantime, forestry activities outside Congress deserve some attention.

Other Areas of Forestry Activity

Since 1886, Federal forestry efforts in the Department of Agriculture had statutory permanency, so the Division of Forestry no longer needed to be renewed each year at appropriations time. Bernhard E. Fernow, a German forester who had immigrated to the United States a decade earlier, was named Chief; he brought professionalism to American forestry. Fernow was also a major player in AFA, and the Hale bill that he had authored would prove to be an important stepping stone. Petitions to Congress from AFA urging Federal forestry legislation found many willing sponsors in both the House and Senate, and they were referred to committee.

Fernow was also active in AAAS. In early 1890, AAAS sent a memorial to President Harrison, urging the "proper administration of the remaining timber lands in the hands of the Governments of the United States and Canada." The Association understood that it was difficult to devise a workable plan to administer the public forest lands, and its Forestry Committee recommended the appointment of a joint House-Senate committee to consider legislative options; during the interim, forest lands would be withdrawn from entry or public use and protected from fire. In a parallel effort, individual members of the Forestry Committee had been consulting with legislators.

One such effort saw Fernow working with Minnesota Representative Dunnell, who introduced H.R. 7026 ("Reservation and preservation of forest lands on the Public Domain and to establish a commission to examine into the condition of said lands, and to report a plan for their management"). Fernow repeatedly appeared before Dunnell's committee and was assured of its "interest and full appreciation." However, the Committee on Public Lands felt that more general legislation was needed before forestry issues could receive its full attention.



President Cleveland made Bernhard E. Fernow Chief of the USDA Division of Forestry in 1886. Fernow, a native of Germany where he was trained in forestry, was the first professional forester in the position.

President Harrison sent the 1890 AAAS memorial on to Congress, stating, "I very earnestly recommend that adequate legislation may be provided, to the end that the rapid and needless destruction of our great forest areas may be prevented." Much of the memorial's rationale centered on the need to protect western watersheds from destruction by fire and indiscriminate logging. Only the Federal Government had the ability to manage such lands for the broader public benefit, which exceeded local needs.

Fernow told an associate that the memorial had been sent and that the AFA (Dunnell) bill would be introduced soon. He grumbled that it had been referred to the House Committee on Public Lands, because the chairman, Lewis Payson of Illinois, was not sympathetic to forestry issues. He would try to have the AFA memorial referred to the Committee on Agriculture, where there was support for forestry. As discussed above, however, the forestry measure was placed on hold during the review of land laws in general.

Adirondack Forest Reserve

Although the public lands were in the West, events in New York were also of interest. Models are useful when explaining an abstract concept such as conservation; for instance, abused European landscapes were often used as examples of unwise land treatment. A positive model became apparent in the United States, as proponents of a forest reserve in New York's Adirondack Mountains worked to set aside a large, non-Federal watershed to protect water supplies for the Erie Canal. The debate had lasted for decades, but the preserve was created in 1885, and was followed in 1894 by an amendment to the State constitution to ensure the permanent protection of basic resource values.

What is important is that the preserve and the debate surrounding it received much attention in the press, in reports of the Division of Forestry, and on the floor of Congress. Those involved in setting aside Federal forest reserves from the public domain were watching the Adirondack situation, and proponents were both intrigued and encouraged by this State action. Though its effect is difficult to measure, the creation of the Adirondack preserve helped make its Federal counterpart a reality.

Yellowstone National Park

Another important event for understanding the congressional action in 1891, which authorized the President to set aside forest reserves, concerned Yellowstone National Park. Congress established the park in 1872, and although purists tend to haggle over semantics, it is generally accepted as the first national park. The park is large—it would turn out to be the largest in America—but its supporters believed that it should have been even larger.

This is when Arnold Hague became part of American history.

As a geologist with the U.S. Geological Survey, Hague had been assigned to survey the park and its natural wonders, and he became a devotee. A tireless letter writer, Hague's letters survive as part of agency records in the National Archives.

Hague believed that Congress would need an economic rationale to protect and expand the park, and protection of forest watersheds seemed to hold promise. He boldly suggested moving the park boundary 9 miles south and 25 miles east, and he found a willing sponsor in Missouri's Senator George Vest, who in 1884 introduced a bill to expand the park according to Hague's suggestion. The bill passed the Senate but failed in the House. Four years later, they were still at it, and Hague said to an associate, "It is a very [difficult] matter to get any legislation accomplished which does not affect any congressional district. The Park is of interest to the Nation, but there is no Congressman who feels that he has a large constituency behind him demanding the passage of the bill."

Boone and Crockett Club

One strategy was to develop a constituency for the park, which turned out to be a hunting organization called the Boone and Crockett Club. Today, the club is known as the keeper of game trophy records, but in earlier years, it was the gathering place for influential people interested in the conservation of big-game habitat. When Hague was invited to join, he declared himself ineligible because he had never killed any wild animals, but he said, "I am a firm believer in the manly sport in others." Hague did join, and he suggested that politicians such as Senator Vest be invited. Vest, Hague claimed, "is a hunter and fisherman, takes great interest in game laws, and in the protection of wild game."

In early 1889, the Boone and Crockett Club sent letters asking for the support of Vest's bill, stating: "The Boone and Crockett Club, from the interest which it has taken in this matter, is in a position to know the sentiment and desires of kindred associations throughout the United States. Thousands of letters throughout the country testify to the widespread interest in the better preservation and maintenance of the Park."

Meanwhile, Hague saw William Holman as a problem. "His main object in life seems to be to postpone everything; to take no action in anything except such as he is personally interested in," Hague stated. "Old Holman is a good deal of a fraud." Hague felt that Holman would not openly oppose the park bill, but also would not urge that it be brought up, but "he is chairman of the committee that is an

important matter." Holman is especially important to the story because it was he who had earlier introduced H.R. 7901 to authorize the President to proclaim forest reserves—the much-revised Hale bill that Fernow had drafted. Holman's interest in parks and forests would merge in 1891.

Bills died, new ones were introduced, and 2 years passed. On March 2, 1891, Hague wrote to an associate, "There is a fighting chance that the Park Bill may come up in the next forty-eight hours." But just 3 days later, he wrote, "We had some slight hope of the passage of the Park Bill up to a very late hour." Once again, proponents of expanding Yellowstone National Park failed to gain a majority in Congress. Some other way would have to be found.

The Forest Reserve Act of 1891

During a century of passing more than 3,000 statutes concerning public lands, Congress did have a few that did not work as planned. In 1890, Congress took on a housekeeping task to repeal and amend until the major public land problems were satisfactorily resolved. Various degrees of fraud and encouragement of speculation were only two defects charged against certain statutes, such as the Desert Land Act. But it would be a bill to repeal the Timber Culture Act ("and for other purposes") that became a vehicle for reform and a means to expand Yellowstone National Park.

The Timber Culture Act itself, largely an aside to this narrative, was a variation of the Homestead Act that had been passed in 1873. Anyone planting a certain number of trees would then own a 160-acre parcel of public domain. It sounded good on paper; the trees would provide fuel, fence posts, lumber, and shade and—it was thought at the time—increase rainfall. These were all scarce items in large portions of the West. This law, however, produced much land fraud; its repeal had been advocated for years by many, including the commissioner of GLO.

On March 18, 1890, the House of Representatives began its examination of the repeal bill H.R. 7254, which had been referred to the Committee on Public Lands. Congressman Mark Dunnell of Minnesota had sponsored the Timber Culture Act of 1873, so he alone in the House felt obliged to defend it. To prove his strong interest in forestry matters, he mentioned his sponsorship of the effort that produced the 1876 creation of the Federal forestry agent. Forestry legislation was pending in other committees that had the support of the Division of Forestry and AFA. Before the Timber Culture Act was repealed, a forest management law should be in place.

Holman was unsympathetic. He attacked the Timber Culture Act, claiming that it had been "a source of dishonesty from the beginning." Other members saw the law as mainly an opportunity for speculation. Dunnell tried valiantly to delay a vote, but his objections were swept aside by an impatient House. In just 4 days, the bill passed and was sent to the Senate.

The senators busied themselves amending the House bill, which had looked largely at repealing the Timber Culture Act. In addition to public lands in Alaska and town sites carved from the public domain, senatorial interest in water was reflected in several amendments, with one section treating reservoir sites and four sections on canal rights-of-way added by Colorado's Henry M. Teller. There was little debate except over the right to

manufacture lumber out of timber cut from mineral lands.

The Senate approved the amended bill on September 16; it was back on the floor of the House on September 25 with a request for a conference. As the clerk began to read the bill, bickering broke out over whether it should be heard or referred to the Committee on Public Lands to analyze the Senate amendments. Holman held for continuation of the reading but was voted down; the bill went to committee. On September 30, the House clerk read aloud: "Your committee have had under consideration House bill 7254, to repeal the timber-culture law, and for other purposes, and recommend that the House non-concur in all Senate amendments and agree to a conference."

When Lewis Payson moved for nonconcurrence on September 30, he was asked whether there would be an agreement that year (1890). He responded, "I will say to the gentleman, if I may properly do so in advance, that unless the Senate recede from their entire amendment and pass the repeal of the timber culture law as the House passed it, no agreement will be reached at this session." The motion was then agreed to, and the speaker appointed Representatives Payson, Holman, and John A. Pickler from South Dakota to serve as conferees. Nearly 5 months later, on February 28, 1891, the conference committee reported back. It would be significant that only 3 days remained before the 51st Congress would adjourn its second session.

Section 24

In the Senate, Preston B. Plumb from Kansas reported that "after full and free conference," the committee recommended that both houses of Congress adopt a bill containing 24 sections. Going into conference, the bill had included only 23 sections, and a quirk of history has made the basic bill subordinate to the added Section 24. "A bill to repeal the Timber Culture Act" is remembered as the Forest Reserve Act of 1891.

Senator Plumb pressured his colleagues to ratify the amended bill without waiting for it to be printed, insisting that "every line of it in one shape or another has passed, I think, by the Senate heretofore." Besides, time was short, and the Senate had other matters to consider before adjournment. Senator Wilkinson Call from Florida challenged: "It seems to me [if] this bill is of so much importance that it would be well for us to know exactly what is in the report . . . although I do not desire to delay it a moment."

Plumb restated that "[t]here is nothing in the report on any subject whatever that has not already undergone the scrutiny of this body, and passed by this body." For good measure, he added, "at this period of the session there has got to be something taken for granted or else

the public business cannot go forward as it should." Call wanted the record to show that he opposed any measure that would "prevent a single acre of the public domain from being set apart and reserved for homes for the people of the United States who shall live upon and cultivate them."

In response, Plumb pulled out the rhetorical stops and assured Call that "no bill has passed this body or any other legislative body that more thoroughly consecrates the public domain to actual settlers and homeowners than does the bill in the report just read. That is the central idea of the bill." Not fully convinced, Call responded, "if that is true, then it meets my approval." The presiding officer then called for the vote, and the conference report was accepted. It was now up to the House, which was considering the amended H.R. 7254 concurrently with the Senate.

As a member of the conference committee, Representative Payson led off by asking to have the clerk read the bill, but first to read a synopsis of the various sections. The summary seems accurate enough; Section 24 read: "authorizes the President to set apart trust reserves where, to preserve timber, he shall deem it advisable." Acknowledging that that one section had not previously passed the House, Payson then asked that the reading of the "long" bill be called off.

Dunnell complained that the bill's title ("An Act to Repeal Timber-Cutting Laws, and For Other Purposes") suggested that repealing the Timber Culture Act was its purpose, when in fact "every kind of legislation imaginable finds itself included in this omnibus bill." Representative Robert Adams of Pennsylvania was more to the point, asking Payson which section had been added. Payson responded:

> *That is the forestry reservation. We have made a provision in this bill authorizing the President . . . whenever in his judgment he deems it proper to do so, to make a reservation of the timber lands, principally applying it to the watersheds of the West, so that the water supply in that country may be preserved from entry and until legislation shall have passed Congress whereby these lands shall be opened.*

Even though it seems unlikely that many would keep it in mind through the years, the "temporary" nature of the reserves ("until legislation shall have passed Congress whereby these lands shall be opened") would remain on the books until 1976. That was when Congress gave permanence to the lands reserved by Presidential proclamation through the National Forest Management Act.

Arkansas Representative Thomas McRae, who would subsequently be seen as a strong advocate of forest

reserves, thought that Section 24 should be eliminated. He stated, "This is an experiment which may prove beneficial to that part of our country, and may assist in its development, or it may not; but I do believe, Mr. Speaker, that the power granted to the President by section 24 is an extraordinary and dangerous power to grant over the public domain." He also explained that the reservation of forested watersheds in the West was not a problem to him, but that the President would also have authority to reserve public lands of agricultural quality—and that was unwise.

Holman, who had authored the 1888 bill with similar language on Presidential proclamations, explained that the intent now "in regard to the withdrawal of forest land is exactly the same as the bill passed last session, after very careful consideration." McRae reminded Holman that he had been opposed to such Presidential authority during the previous session, and he remained so. Dunnell supported McRae's position: "This is a vast power to give the President." Congressional debate over just how and for what the reserves were to be managed would continue until 1897.

And then things got petty. Dunnell rightly challenged the effort to keep the bill from being read in full, and Holman agreed. But Payson accused Dunnell of engaging in innuendo against the conference committee, stating, "I am almost expecting the gentleman [Dunnell] to intimate that there has been an immense lobby around the corridors here in order to force passage of this bill." Payson also made it personal—"the gentleman from Minnesota . . . is ignorant of the provisions of this bill [and] has not yet got out of the primary school of ordinary statesmanship. [laughter]"

The tactics were clear. If the bill was to be printed in full, the delay would cause its defeat, because all would have to focus instead on the pending appropriations measure that obviously took precedence. It had to go through that evening or be held over. Some members cried, "vote, vote," and Payson applied pressure. The bill was "perhaps the last one I shall ever be connected with in the public service." He was proud of his 10 years in Congress and was going to retire. He and Holman had labored "night after night" to craft a bill that provided for "homes for the poor and the reclamation of the desert." He told Dunnell that he took "great pride" in this "fitting termination" of his public service.

More bickering, more innuendo, some parliamentary sleight of hand, and objections to the conference committee report were overcome. The House approved on February 28. There was a final reading on March 2 but no discussion, and the bill went to the executive mansion for President Harrison's signature on March 3, 1891.

Origins of 1891 Act—Fernow and Holman

Generations of scholars have looked at the 1891 act (specifically Section 24) and speculated on its origins. That it was added in conference committee and adopted without referral to both houses of Congress is mentioned almost without fail, even though the practice was not all that unusual in those times. Several scholars have pointed to the similarity of language between Section 8 of the 1888 bill and Section 24 in 1891, suggesting that Congressman Holman, a member of the 1890–91 conference committee, got Section 24 added. Of course, if it is the *concept,* rather than the *detail,* of Presidential proclamation that is significant, then Fernow's authorship of the 1888 Hale bill would make him "father" of the National Forest System.

Historians generally have offered a similar lament that the record is not complete enough to state with certainty what happened in the conference committee when Section 24 was added. Contemporaries give different accounts. South Dakota Senator Richard Pettigrew says he himself did it; publisher Robert Underwood Johnson says that he himself did it; Fernow says that Secretary Noble did it because Noble modestly implied that he had; and some say that GLO's Bowers was the key. Pettigrew and Johnson "remembered" their role much later, and it was some time after 1891 that Noble told Fernow that it might be proper for the Secretary himself to get some credit. Fernow's correspondence during late February and early March 1891 clearly shows that he was not even aware of the law until 2 weeks after Harrison signed it. Finally, according to Hague's account, it was he who brought the news to Noble's attention. And so it goes.

Arcane debates aside, it is clear that Holman has not received his due from forest historians. A close comparison of Section 8 (1888) and Section 24 (1891) offers convincing evidence that one led to the other. The law adopted in 1891 contains new language—shown in capital letters—replacing 1888 language and leading into retained portions of 1888 language, as shown:

> *THAT THE PRESIDENT OF THE UNITED STATES MAY FROM TIME TO TIME SET APART AND RESERVE, IN ANY STATE OR TERRITORY HAVING PUBLIC LANDS BEARING FORESTS, [in] ANY PART OF THE PUBLIC LANDS designated in the act as timber lands, or any lands WHOLLY OR IN PART COVERED WITH TIMBER OR UNDERGROWTH, WHETHER OF COMMERCIAL VALUE OR NOT, AS PUBLIC RESERVATIONS, on which the trees and undergrowth shall be protected from waste or injury, under the charge of the Secretary of the Interior; AND THE PRESIDENT SHALL, BY*

PUBLIC PROCLAMATION, DECLARE THE ESTABLISHMENT OF SUCH RESERVATIONS AND THE LIMITS THEREOF[.] and may employ such portion of the military forces as may be necessary . . .[1]

This comparison offers mute testimony as to why Section 24 has such cumbersome syntax; in fact, it is an incomplete sentence. Hasty editing of the conveniently handy Section 8 explains the awkwardness, and lack of anything approaching a consensus on forest reserve purposes and management infrastructure explains what was omitted. As we know now, it would take 6 additional years to agree on purposes, and that agreement would barely squeak by even then.

As a member of the 1891 conference committee, Holman was in a position to provide the language for Section 24, and common sense insists that he did. Holman's contribution gives a better look at congressional intent, because the 1888 bill was accompanied by a committee report that gives background to Section 8—something that helps explain what happened when the 1891 statute was implemented. The committee report clearly establishes the intent to establish forest reserves to protect water supplies—a key point that is not at all apparent in the actual statute.

[1]*Source:* Ron Arnold.

The Yellowstone Park Timberland Reserve

The Geological Survey's Arnold Hague had been hoping that the bill to expand Yellowstone National Park would pass. On March 16, 1891, he wrote an associate that many bills, including the park bill, failed to pass because Congress was distracted by a debate over a proposal to lay a telegraph cable to Hawaii. But he saw the opportunity offered by Section 24 of the March 3 act, and he asked the chief clerk in the Department of the Interior for "such forms as you may have in you office for the setting aside of reservations from the public lands. I am very anxious to adjust the matter of the lands adjoining the Yellowstone Park which the Secretary has signified his desire to reserve."

The wheels of bureaucracy spun more rapidly a century ago; on the next day, Interior clerk E.M. Davidson wrote to Hague, "I enclose herewith a copy of the form of letters usually written by the Secretary in recommending the reservation of lands for public purposes together with the endorsement of the President. The paper is returned to the Department by the President and then referred to the General Land Office where record is made which completes the reservation." The reservation form is shown on the following page.

Form in hand, Hague wrote to Secretary John Noble on March 25:

> *As requested by you during our interview last week with regard to the reservation of forest lands near the headwaters of the Yellowstone River, we take pleasure in enclosing for your consideration, a draft of a proclamation, setting apart, by order of the President, a tract of country situated to the south and east of the present boundaries of the Yellowstone National Park.*

He told Noble that the tract was "identical" to that proposed in the Vest bill to enlarge the park and that the bill had passed the Senate "four times" but had failed in the House. "In all the Rocky Mountain country," Hague wrote, "there are few areas, if any, of equal extent better adapted for a National Forest Reservation, and none which surpass it in any way for its advantage as a natural reservoir for the storage of water." He added that the southern portion provided breeding places for elk and deer and that the animals needed to be protected from the growing number of hunters.

President Harrison obliged on March 30, and the Yellowstone Park Timberland Reserve was on the books. (On July 1, 1908, the reserve was renamed the Shoshone National Forest.)

DEPARTMENT OF THE
INTERIOR
Washington

The President

Sir:

I have the honor to recommend that the tract of land described as follows:

_____

_____

_____

_____

_____

(It is usual to insert here purposes for which reserved and statement of special reasons for the reservation.)

_____

_____

_____

_____

_____

Secretary

A week later, Hague wrote to several associates explaining what had happened. He had seen the bill to repeal the Timber Culture Act as a means to salvage the intent of the failed Vest bill; he had brought the matter to the attention of Secretary Noble; and he drafted the Presidential proclamation. He knew that the proclamation had vague and incomplete boundary descriptions, such as not stating that the eastern and southern park boundaries doubled as reserve boundaries, but he did not think anyone would notice. As it turned out, the defects were noticed and corrected months later.

Hague remained intensely interested in the park addition, which is how most viewed that particular reserve. For another decade, he wrote to associates about its status and the need for its permanent protection as a park. Eventually he would understand that the reserve was not in fact a national park and that it would be managed according to different criteria, as determined by Congress. But perhaps because of his specific interest, he would later be an active participant in the broader effort to develop management policies for the forest reserves.

Forest Reserve Instructions

Meanwhile, the bureaucracy was quickly gearing up to implement the newly granted proclamation authority. On May 15, 1891, the commissioner of GLO sent a circular to all field agents instructing them to gather information on tracts suitable for forest reserves. The instructions contained two main points:

1. The reserves were to protect watersheds.

2. Those affected by the reservation would be given an opportunity to state their opinions.

Notice was placed in local newspapers and posted in public areas. The response was prompt, substantial, and thoughtful. It is obvious that the language of the notice influenced the letter writers, who often referred specifically to the official request for information and included statements about timber and water supplies. Some letters were short and general, but others gave lengthy rationales for the creation of a particular forest reserve; a few even contained legal descriptions. Authors included settlers, businesspersons, law firms, water districts, livestock associations, and banks, and they generally represented the full range of individuals living on or near potential forest reserves.

A broad cross section favored reserves; opposition was more narrowly focused on the mining industry's concern that its freedom to act might somehow be curtailed. Others, such as Colorado's Senator Teller, urged caution, lest settlers suffer needless hardship. The needs and inherent rights of people already on the land must be considered as new reserves were created, Teller and others would insist. This latter point would be much emphasized during congressional debate over the next half decade. In 1897, when the President seemed to ignore local concerns, the reserve system itself was in extreme jeopardy.

The Debate Over Purposes

Congress turned almost immediately to the task of determining the purposes of the forest reserves, for under the vague terms of the 1891 proclamation, they functioned as quasi-parks. Public forest lands not reserved were eligible for degrees of management—protection against fire, sale of timber, and so forth. But the reserves were withdrawn from entry under land laws and were in limbo. They could not be settled and would not yet be managed. They just sat there waiting for Congress to decide. Probably no one thought that the decision would be 6 years in the making. During this period, about 40 million acres would be reserved.

In 1892, Nebraska's Senator Algernon Paddock introduced S. 3235 (to provide for the establishment, protection, and administration of public forest reservations, and for other purposes), and while in the House Thomas McRae introduced H.R. 10101 (to protect forest reservations). Neither bill got very far, but their sponsors were key players, and each attracted a following. Initially, foresters such as Fernow favored Paddock's approach—administration by an Agriculture agency—but eventually McRae would emerge as the most influential member of Congress in either house.

Sustained-Yield and Multiple-Use

The committee report that accompanied McRae's bill contains language that was reprinted year after year, as it became the unofficial theme of the forest reserve system. Cumbersome syntax aside, the multiple-use, sustained-yield concept—introduced by George Perkins Marsh in 1864—was reiterated in the House of Representatives in 1892:

> *It becomes, therefore, necessary, also, to prescribe the manner and methods by which the timber growing thereon [the reserves], the mineral contained therein, the water powers furnished by them, and the pasturage within the same shall be used, so as not to injure or destroy the primary objects for which these reservations have been made, namely, to secure such forest conditions as are necessary to preserve an even water flow.*

The message was: "use but don't abuse"; clearly the reserves were not to be "locked up," but all the resources were to be available for use in such a way as to ensure permanent supply.

Water Reserves

The above quote and other sections of the committee report emphasize a

point that is not all that well understood today; the primary driving force behind forest reserve legislation at that early time was the protection and enhancement of water supplies, including flood protection. It would have been more accurate to label them "water reserves," but forests were the most visible component, so forest reserves they were—and are.

In addition to the "use but don't abuse" concept, McRae's early efforts produced another key thought: "The objects for which these reservations are made or are to be made . . . are represented to be protection of the forest growth against destruction by fire and ax and preservation of forest conditions upon which water conditions and water flow are said to be dependent. . . ." The words "are said" refer to scientists in the Division of Forestry, GLO, Geological Survey, Irrigation Survey, and AAAS. As had Marsh in 1864, scientists had been speaking and writing about the tight relationship between forests and water supply—quantity and quality—and the need to provide for the responsible management of one to ensure the healthy supply of the other. Since 1872, Congress had translated this scientific concern into a series of bills to protect forests at the headwaters of streams—and "for other purposes."

When trying to determine what Congress was intending regarding the purposes of forest reserves, one can learn much by looking at a variety of alternatives contained in the bills considered. Congress examined a range of options: States' rights versus Federal responsibilities, use versus preservation of resources, and detailed prescriptive statutes versus delegation of broad administrative authority to an Executive Branch agency. The final product, signed into law on June 4, 1897, means much more when one determines what it might have been.

In 1893, McRae introduced H.R. 119 (to protect forest reservations), which contained the basis for the statute enacted in 1897. By 1893, the "purposes" clause essentially took its final form: "That no public forest reservation shall be established except to improve and protect the forest within the reservation or for the purpose of securing favorable conditions of water flow and continuous supplies of timber to the people." This statement had impressive staying power; Congress tinkered with other sections, but the "purposes" language stayed much the same.

Everyone seemed to agree on one point. Those who lived on or near the reserves would not be unduly inconvenienced; they would have right of egress and full access to resources, but they had to operate under the permit system. Thus, the administrative agency was obliged to grant rights-of-way, for example, but not to the detriment of the

purposes for which the reserves had been established.

Timber Sales

Timber sales were a touchy matter, even for those who favored them. There was the usual concern about monopoly, and there was substantial sentiment that *no* timber should be cut. Instead, the reserves should be dedicated to the protection of watersheds. This ambivalence may explain why the timber sale section of the bill is so detailed and so specific, in comparison to sections addressing other matters. To be sold, timber had to be "marked and designated," appraised, and sold at least at that price. The sale needed to be properly advertised so all could take advantage of it. This section would receive national prominence in the early 1970's, when the courts determined that timber was being sold from these lands in violation of the 1897 act. The so-called "Monongahela" decision on clearcutting (*Izaak Walton League* v. *Butz*) would prompt the passage of the National Forest Management Act of 1976, which accommodated a range of management and harvesting options.

Federal Waters

There is still another thread that stretches directly to modern times. By 1896, Congress was considering a newly added section of H.R. 119, the so-called "all waters" clause. The language that McRae favored right up to final passage was very strict: "That nothing herein shall be construed to prohibit the use of any and all water on such reservations for power, domestic purposes, or for general irrigation purposes under the laws of the State or Territory wherein such reservations are situated." Variations of this language appeared in later versions of H.R. 119 and in companion bills; but during the final months of debate and compromise, a significantly different version appeared and stayed through passage. The new language was: "All waters may be used . . . under the laws of the State or the United States." Clearly, Congress was delegating authority to the Executive Branch agency to make water available to those who would put it to good use while maintaining "favorable conditions" of flow. At this writing, the courts are still sorting through the legislative history of the 1897 act to determine just how water law operates on Federal lands.

Forest Reserve Commission of 1896

H.R. 119 and similar bills made some progress toward passage in Congress, but something—probably too little support rather than too much opposition—prevented every one of them from clearing all the hurdles on the way to the President's desk. As a tactic to break through, at the urging of Bernhard Fernow and others, Secretary of the Interior Hoke Smith asked National Academy of Sciences president Wolcott Gibbs to appoint a

commission to study the forest reserve question and make recommendations on their creation and management. In 1896, Gibbs appointed Alexander Agassiz of Harvard, Army engineer Henry L. Abbott, the Geological Survey's Arnold Hague, Harvard botanist Charles S. Sargent, and Gifford Pinchot. Sargent was named chairman, and Pinchot, a young and energetic forester and the only commissioner not a member of the Academy, was named secretary. Armed with a $25,000 appropriation to cover expenses, the commission headed West to examine existing and potential reserves and to develop its recommendations.

Whether the commission's goal was heroic or quixotic can be debated, but it certainly was ambitious. Areas already reserved or to be reserved were by definition rather remote and poorly documented. The commission traveled through the western mountains by train, by buggy, and on horseback. They lodged in hotels when they could, or they camped out. For part of their journey, they benefited from the company of southern California's forest reserve advocate Abbot Kinney and the Sierra Club's John Muir. After several months of accumulating all the information they could by direct observation and the reports of others, the commissioners returned to the East. Chairman Sargent asked Pinchot and Hague to write the report for consideration by the whole body.

When asking Gibbs to appoint a forest reserve commission, Secretary Smith had included three questions: Is it practical to establish and protect forest reserves? Is the influence of forests on climate, soil, and water conditions adequate to justify reserve creation? What sort of legislation is needed? The 60-page report went far beyond these original questions.

The report opened with the obligatory survey of undesirable forest conditions in Europe and Asia as a rationale for not letting that happen in the United States. There were descriptions of existing and proposed reserves and a lengthy section on the preferred administrative agency. The appendices included sample bills. However, by the time the official report was published in late May 1897, it was moot.

Cleveland's 21-Million-Acre Surprise

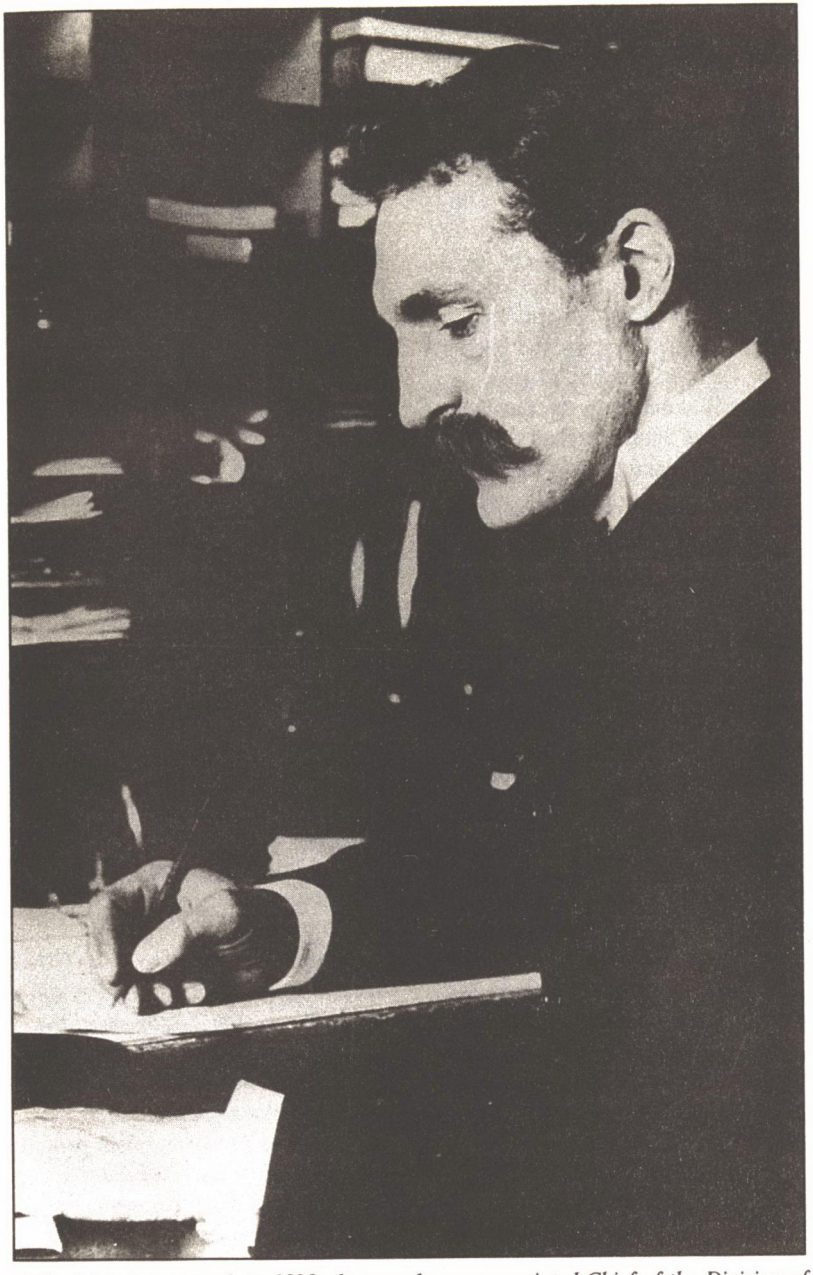
The report was already late in February 1897, but Secretary Smith told President Grover Cleveland that the basic information on which reserves should be created was at hand. The reasons remain unclear, but with less than a month remaining in office, Cleveland decided to proclaim the 21 million acres of forest reserves as recommended by the commission, and proclamations dated February 22—Washington's Birthday—seemed an appropriate remembrance for the first president. Thus, without prior consultation

with those who would be directly affected or their representatives in Congress, the forest reserve system was more than doubled in size with a stroke of the Presidential pen.

It is difficult to sort out political hyperbole from justifiable outrage, but by any measure the reaction was severe. Of the critics, Fernow was perhaps the most gentle by labeling the Presidential action "injudicious." He added that the proclamation had "stirred up such an antagonism as we have never had before." Congressional opponents of the proclamations—and there were many—attached a rider to the appropriations measure that repealed Cleveland's action. In his last legislative act, the President vetoed the appropriations bill with its onerous amendment and then took part in his last ceremonial act, accompanying William McKinley to his inauguration.

At the start of his term, McKinley called a special session of Congress; his predecessor's veto had left the McKinley administration without appropriations. Also, his agenda included a deteriorating situation in Cuba, and he needed to keep congressional support for the pending declaration of war against Spain. He met with Pinchot (who by now was eclipsing Fernow as the Nation's most influential forester) and others, assuring them that he was in favor of saving the forest reserves, but he would not take any overt action that might jeopardize his larger interests.

Getting a forestry measure through the appropriations process was going to be difficult, because even before Cleveland's provocative act, McRae's H.R. 119 and similar measures were not successful. At this point, opponents could appear reasonable and insist that it was inappropriate to consider anything other than appropriations during the special session. Opponents with less concern about appearance made speeches on the floor that castigated Cleveland. In the style of the time, one House member said: "I do not think there is a man on Earth who is such a blunderhead that he can make even a thousandth part of the mistakes that President Cleveland made. [laughter and applause]" The commissioners themselves did not fare much better; they were accused of making recommendations for forest reserves based on information that reserve opponents characterized as having been gathered only in cozy western drawing rooms.



Gifford Pinchot at work in 1898, the year he was appointed Chief of the Division of Forestry (later the Forest Service) in the U.S. Department of Agriculture.

Passage at Last

Reserve proponents had to work hard to save Cleveland's proclamations and gain passage of a statute that defined the purposes for which reserves could be established. The first reserve had been proclaimed in the spring of 1891. In the spring of 1897, the purposes still had not been agreed on, even though approximately 40 million acres had been set aside. Fernow, Pinchot, Hague, Charles Walcott from the Geological Survey, and others worked the congressional cloakrooms to find a rallying point; the gloomy, even hostile, situation needed to be turned around.

As with so much of this story, accounts vary as to just what happened, with several taking credit for it. What is clear is that South Dakota Senator Pettigrew, chairman of the Committee on Public Lands, withdrew his early opposition to the reserves and became a supporter. Walcott is generally credited for swinging him around. It seems a bit strange that the opponents agreed to compromise, because they had the high moral ground—Cleveland had proclaimed the reserves without prior consultation. The focus of the compromise was a 9-month suspension of Cleveland's reserves, while allowing settlers already on the proclaimed land an opportunity, through the so-called lieu land clause, to swap their holdings without penalty for public land outside the reserve. After 9 months, Congress would take another look at the reserves to determine whether they would be reinstated.

Forest Management Act of 1897

In the House, McRae made one last attempt to substitute language from his earlier bills—" . . . nothing shall prohibit the use of water"—instead of the more favored "all waters may be used." He ultimately failed. The appropriations measure (through a special session of Congress called to address appropriations) for the Geological Survey was amended to provide for survey of the reserves, suspension of Cleveland's reserves for 9 months, and definition of purpose. This last provision resulted in reserves being established for timber and water supplies, settlers having rights-of-egress, mature timber being marked and designated, appraised, and sold at auction, and all water being used under State and Federal laws. Also, substantial administrative latitude was granted to the Executive Branch administering the agency. Because the amendment applied to all reserves created under the 1891 act, the Yellowstone reserve was included. Finally, during the 9-month suspension period, there were occasional references to the approaching deadline, but it passed without notice and Cleveland's reserves were fully restored.

The new law gave management authority to GLO. In 1901, that

agency would establish Division R to carry out this mandate, and the division's foresters could use a newly printed "Forest Reserve Manual" for guidance. Since 1897, "Rules and Regulations Governing Forest Reserves" had served as a basis for management and protection, but the new manual reflected the existence of a forestry agency. In 1905, as part of the broader conservation movement, the reserves and the work of Division R were transferred to the Bureau of Forestry in the Department of Agriculture. In 1907, Congress rescinded the President's authority to proclaim forest reserves in six Western States—in practical terms achieving what came within a whisker of happening in 1897.

Final Observations

The 1897 appropriations measure is now called the Organic Administration Act, the Forest Management Act, or sometimes the Pettigrew Amendment. Coupled with the 1891 act, the 1897 amendment served well until 1960, when Congress considered and then passed the Multiple-Use Sustained-Yield Act, which was determined to be "supplemental to, but not in derogation of, the purposes for which the national forests were established as set forth in the Act of June 4, 1897."

In the 1970's, there would be significant court challenges for both the timber and water sections of the 1897 act. Nonetheless, if the reader could go back to the 1891–97 era and explain to Congress that its actions would hold for six or seven decades, it would undoubtedly feel that it had done a good piece of work.

Whatever limitations are obvious in retrospect, the two statutes (or amendments to statutes) provided the means for a grand experiment in public land and resource management to which even critics grudgingly pay their respects. Even though in the 1970's there was greatly increased Federal involvement in a broad spectrum of environmental issues, while Congress at the same time reversed itself and enacted prescriptive forestry legislation to replace earlier broad mandates, these developments should not be viewed as criticism of the original effort. Even the Constitution is amended from time to time; specific statutes cannot be expected to do better.

References

Unpublished

National Archives

Records of the Irrigation Survey, especially the Arnold Hague letter-press books.

Records of the USDA Forest Service.

Records of the General Land Office, especially Division R.

Records of the House of Representatives and Senate.

Library of Congress

Papers of Gifford Pinchot, including the Pinchot diaries.

Published

American Forestry Association. *Annual Reports.*

Arnold, R. 1988. "Stepchild of America." In: Soderberg, K.A., and J. DuRette (eds.). *People of the Tongass: Alaska Forestry Under Attack.* Bellevue, WA: Free Enterprise Press.

Bartlett, R.A. 1985. *Yellowstone: A Wilderness Besieged.* Tucson, AZ: University of Arizona Press.

Dana, S.T. 1956. *Forest and Range Policy.* New York: McGraw-Hill.

Fairfax, S.K., and A.D. Tarlock. 1979. "No Water for the Woods: A Critical Analysis of United States v. New Mexico." *Idaho Law Review*: 509–554.

Hough, F.B. 1877, 1880, and 1882. *Report Upon Forestry.* Washington, DC: Government Printing Office.

Gates, P.W. 1968. *History of Public Land Law Development.* Washington, DC: Government Printing Office.

Ise, J. 1920. *United States Forest Policy.* New Haven, CT: Yale University Press.

Kirkland, H.D. 1971. "The American Forests, 1864–1898: A Trend Toward Conservation." Doctoral Dissertation, Florida State University.

Manning, T.G. 1967. *Government in Science: The U.S. Geological Survey, 1867–1894.* Lexington, KY: University of Kentucky Press.

McCarthy, G.M. 1977. *Hour of Trial: The Conservation Conflict in Colorado and the West, 1891–1907.* Norman, OK: University of Oklahoma Press.

Marsh, G.P. 1864. *Man and Nature: Or Physical Geography as Modified by Human Action.* New York: Charles Scribner.

Miller, J.A. 1973. "Congress and the Origins of Conservation: Natural Resource Policies, 1865–1900." Doctoral Dissertation, University of Minnesota.

Pinchot, G. 1947. *Breaking New Ground.* New York: Harcourt and Brace.

Reiger, J.F. 1975. *American Sportsman and the Origins of Conservation.* New York: Winchester Press.

Rodgers, A.D. 1951. *Bernhard Eduard Fernow: A Story of North American Forestry.* Princeton, NJ: Princeton University Press.

Steen, H.K. 1976. *The U.S. Forest Service: A History.* Seattle, WA: University of Washington Press.

U.S. Congress. *Congressional Record* and various committee reports. USDA Forest Service. *Annual Reports,* 1886–1898.

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